

760. RULES FOR THE CONTROL OF AMMONIA FROM DAIRY FARMS.

The purpose of Sections 760 through 764 is to set forth the requirements for the control of ammonia through best management practices (BMPs) for certain size dairy farms licensed by the Idaho State Department of Agriculture to sell raw milk for human consumption. Compliance with these sections does not relieve the owner or operator of a dairy farm from the responsibility of complying with all other federal, state and local applicable laws, regulations, and requirements, including, but not limited to, Sections 161, 650 and 651 of these rules. Registration forms and guidance documents relating to these rules are located at www.deq.idaho.gov. (7-1-06)T

761. GENERAL APPLICABILITY.

The requirements of Sections 760 through 764 apply to the following size dairy farms:

SUMMARY: Animal Unit (AU) or mature cow threshold to produce 100 ton NH₃/year

<u>Animal Unit (AU) Basis</u>	<u>Drylot</u>	<u>Free Stall/Scrape</u>	<u>Free Stall/Flush</u>
	<u>AU (100 t NH₃) Threshold</u>		
<u>No land app</u>	<u>7089</u>	<u>3893</u>	<u>2293</u>
<u>27% volatilization</u> ¹	<u>6842</u>	<u>3827</u>	
<u>80% volatilization</u> ²	<u>6397</u>	<u>3700</u>	
<u>Cow Basis (1400 lbs)</u>	<u>Drylot</u>	<u>Free Stall/Scrape</u>	<u>Free Stall/Flush</u>
	<u>Total Cows (100 t NH₃) Threshold</u>		
<u>No land app</u>	<u>5063</u>	<u>2781</u>	<u>1638</u>
<u>27% volatilization</u> ¹	<u>4887</u>	<u>2733</u>	
<u>80% volatilization</u> ²	<u>4569</u>	<u>2643</u>	

¹ Assumes: Expected level of N->NH₃ volatilization for: drop-hose or ground level liquid manure application

² Assumes: Expected level of N->NH₃ volatilization for: center pivot or other conventional sprinkler irrigation liquid manure application

(7-1-06)T

762. PERMIT BY RULE.

01. General Requirement. Owners and operators of dairy farms shall be deemed to have a permit by rule if they comply with all of the applicable provisions of Sections 760 through 764. Owners and operators of dairy farms subject to Sections 760 through 764 shall not operate without obtaining the applicable permit by rule within the time frame specified. (7-1-06)T

02. Optional Permit by Rule. Nothing in Sections 760 through 764 shall preclude any owner or operator of a dairy farm from requesting and obtaining an air quality permit pursuant to Section 200, nor shall Sections 760 through 764 preclude an owner or operator of a dairy farm below the threshold size in Section 761 from complying with Sections 760 through 764 and thereby obtaining a permit by rule. (7-1-06)T

03. Exemption. If a dairy farm not subject to Sections 760 through 764 otherwise would become subject to those sections as a result of an emergency, the dairy farm shall notify the Director in writing within fourteen (14) days of the emergency. The notification shall include an explanation of the emergency circumstances. The dairy farm shall be exempt from the requirements of Sections 760 through 764 as long as the consequences of the emergency continue (but in no case for more than one (1) year) unless for good cause the Director determines it is appropriate to limit, condition or revoke the exemption. For the purpose of this rule "emergency" shall be defined as a serious situation or occurrence that happens unexpectedly and demands immediate action. (7-1-06)T

763. REGISTRATION FOR PERMIT BY RULE.

01. Registration Process. Any owner or operator of a new dairy farm subject to Sections 760 through 764, or an existing dairy farm that becomes subject to these sections due to change in size or type of

operation, shall register prior to fifteen (15) days of triggering the threshold for which a permit is required. (7-1-06)T

02. Registration Due Date. Any owner or operator of an existing dairy farm subject to Sections 760 through 764 shall register within fifteen (15) days of the effective date of Sections 760 through 764. (7-1-06)T

03. Registration Information. The following information shall be provided by the registrant to the Department of Environmental Quality and the Department of Agriculture: (7-1-06)T

a. Name, address, location of dairy farm, and telephone number. (7-1-06)T

b. Information sufficient to establish that the dairy farm is of the size and type described in Section 761. (7-1-06)T

c. Information describing what BMPs, as described in Section 764, are employed to total twenty-seven (27) points. (7-1-06)T

04. Exemption from Registration Fee. Dairy farms subject to Sections 760 through 764 are exempt from paying the permit by rule registration fee set forth in Section 800. (7-1-06)T

05. Inspection. Within thirty (30) days of receipt of the registration information, the state of Idaho shall conduct a qualifying inspection to ensure the requisite point total of BMPs are employed. (7-1-06)T

764. DAIRY FARM BEST MANAGEMENT PRACTICES.

01. BMPs. Each dairy farm subject to Sections 760 through 764, or that otherwise obtains a permit by rule under these sections, shall employ BMPs for the control of ammonia to total twenty-seven (27) points. Points may be obtained through third party export with sufficient documentation. The table located at Subsection 764.02. lists available BMPs and the associated point value. As new information becomes available or upon request, the Director may determine a practice not listed in the table constitutes a BMP and assign a point value. (7-1-06)T

02. Table - Ammonia Control Practices for Idaho Dairies.

[see table on following page]

Ammonia Control Practices for Idaho Dairies

System	Component	Ammonia Control Effectiveness ¹			Compliance Method ³
		Open Lot	Freestall Scrape	Freestall Flush	
Waste Storage and Treatment Systems	Synthetic Lagoon Cover	15	20	20	1
	Geotextile Covers	10	13	13	1
	Solids Separation	3	3	3	3, 4
	Composting	4	4	4	1
	Separate Slurry and Liquid Manure Basins	6	10	-	1
	In-House Separation	0	12	0	1
	Direct Utilization of Collected Slurry	6	10	-	1, 3, 4
	Direct Utilization of Parlor Wastewater	10	10	10	1
	Direct Utilization of Flush Water	8	0	13	3, 4
	Anaerobic Digester	-	-	-	-
	Anaerobic Lagoon	-	-	-	-
	Aerated Lagoon	10	12	15	2
	Sequencing-Batch Reactor	15	20	20	2
	Lagoon Nitrification/Denitrification Systems	15	20	20	2
	Fixed-Media Aeration Systems	15	20	20	2
General Practices	Vegetative or Wooded Buffers (established)	7	7	7	1
	Vegetative or Wooded Buffers (establishing)	2	2	2	1
	Alternatives to Copper Sulfate	-	-	-	-
Freestall Barns	Scrape Built Up Manure	-	3	3	1
	Frequent Manure Removal	UD	UD	UD	-
	Tunnel Ventilation	-	-	-	-
	Tunnel Ventilation w/Biofilters	-	10	10	1
	Tunnel Ventilation w/Washing wall	-	10	10	3, 4
Open Lots and Corrals	Rapid Manure Removal	4	2	2	1, 2
	Corral Harrowing	4	2	2	1
	Surface Ammendments	10	5	5	2
	In-Corral Composting / Stockpiling	4	2	2	1
	Summertime Deep Bedding	10	5	5	1
Animal Nutrition	Manage Dietary Protein	2	2	2	2
Composting Practices	Alum Incorporation	12	8	6	2
	Carbon:Nitrogen Ratio (C:N) Ratio Manipulation	10	7.5	5	2
	Composting with Windrows	-	-	-	-
	Composting Static Pile	6	4.5	3	1
	Forced Aeration Composting	10	7.5	5	1
	Forced Aeration Composting with Biofilter	12	8	6	1
Land Application²	Soil Injection - Slurry	10	15	7.5	2
	Incorporation of manure within 24 hrs	10	10	10	2
	Incorporation of manure within 48 hrs	5	5	5	2
	Nitrification of lagoon effluent	10	10	15	3, 4
	Low Energy/Pressure Application Systems	7	7	10	1
	Freshwater Dilution	5	8	8	1, 2
	Pivot Drag Hoses	8	8	10	1
	Subsurface Drip Irrigation	10	10	12	1

Notes:

1. The ammonia emission reduction effectiveness of each practice is rated numerically based on practical year-round implementation. Variations due to seasonal practices and expected weather conditions have been factored into these ratings. Not implementing a BMP when it is not practicable to do so, does not reduce the point value assigned to the BMP, nor does it constitute failure to perform the BMP. UD indicates that the practice is still under development.

2. Land application practices assume practice is conducted on all manure; points will be pro-rated to reflect actual waste treatment; points can be obtained on exported material with sufficient documentation.

3. Method used by inspector to determine compliance:

1=Observation by Inspector

2=On-Site Recordkeeping Required

3, 4=Deviation Reporting Required. Equipment upsets and/or breakdowns shall be recorded in a deviation log and if repaired in a reasonable timeframe does not constitute non-compliance with this rule.